Arlington County Information Technology Advisory Commission
2100 Clarendon Boulevard
Arlington, VA 22201

July 2, 2014

Marlene H. Dortch, Esquire
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: GN Docket No. 13-5
Technology Transitions

Dear Ms. Dortch:

The ability to sustain communications during power outages is a matter of growing concern in Arlington, Virginia, and indeed across the nation. (Attached are excerpts from the most recent filing made in May 2013, with the FCC on this matter, by way of background.) The ability to communicate during power outages can be a matter of life and death, especially for people that are handicapped, have lost power to life sustaining equipment, or have been injured in the event that has led to the power outage. There are several reasons for growing concern in this matter that include the following:

(a) There is sporadic but growing evidence that copper wire service that can continue to support telecommunications during a power outage is being phased out and carriers are seemingly claiming they have no responsibility to maintain or repair copper line service.

(b) The battery packs that are provided by Verizon, Comcast or other carriers that are supposed to sustain emergency services do not necessarily provide the full number of hours of emergency service claimed, degrade in their performance over time and can ultimately provide no power. These batteries also generally provide no clear signal to consumers as to when they need to be replaced; thus consumers have no basis on which to know how and when to replace these batteries.

The Arlington County, Virginia, Information Technology Advisory Commission (ITAC) hereby makes this submission in the above-captioned proceeding. The FCC is aware of these issues and held a two day event in mid-April to address the reliability and restorability of voice over IP services. The FCC also has a website blog that addresses this issue and indicates that more FCC action may be taken. ITAC believes, however, that more specific and urgent action is needed.

In particular, it is believed that there might be a variety of actions taken to improve the current situation. These include improved, longer lasting and more battery systems could be developed by the carriers -- as Verizon is now pursuing. Apartment, condos, and high-rise buildings of a certain size might be required to provide battery (UPS) and generators sufficient to sustain communications or

alternatively and perhaps more appropriately this might become a requirement levied on carriers. It might be possible for altered hook-ups to be designed so that a cable from a car battery could be plugged into the home network to provide emergency power. It might also be appropriate to create a more systematic framework whereby alternative suppliers of battery packs (able to provide batteries at much more competitive prices) would be encouraged to install new batteries into homes under licensed guidelines. (Currently one can buy replacement batteries on line, but this is far from a systematic plan.) Most fundamentally, the architecture of fiber networks might be re-envisioned to provide a hybrid optical fiber and copper wire architecture to allow powering of telecom and IT systems during power outages. The particular concern here is for handicapped, and those who for health reasons are dependent on continuous power supply.

The main point is that the current situation is unacceptable in that the general public is unaware of the extent and nature of the problem and some regulatory relief action is necessary to ameliorate a currently unacceptable problem that is growing in scope. In short, we believe the FCC should undertake, as a matter of urgency, a formal rule-making process to improve the reliable restoration of services in emergencies.

The ITAC in Arlington, Virginia, works closely with staff from the County's Department of Technology Services and also consults with national and international experts in the field of disaster management and security enhancement. In this context, we have made previous filings with the FCC about emergency capabilities during major storms and other disruptive events. In our earlier filing with the FCC in May 2013, we have made the following points about emergency restoration of power that are again provided to put these concerns on the record again. Our previous comments are, in our view, even more relevant today in light of new policies being implemented by Verizon that we believe make the problem of restoration of consumer-based fiber optic services during emergencies even more problematic.

Here is the relevant portion of our previous filing of May 2013 in PS Docket Nos. 13-75 and 11-60:

> "Emergency, Governmental, Business and Consumer Telecommunications during Power Outages: During the violent Derecho storm that occurred in June 2012 in Northern Virginia there were major failures of telecommunications services provided in Arlington County, Virginia, and in the region. The 911 services in Arlington, as provided by Verizon, failed due to the failure of backup power systems. The Verizon backup power generator failure signifies a lack of regulatory process to have independent and perhaps random checks of the integrity of back-up power systems enforced by the FCC or the Department of Homeland Security. Beyond the failure of the 911 system there was also a widespread failure of the telecommunications services on the Verizon FiOS fiber service because the backup batteries installed in consumer homes also failed to perform consistently in many instances. Battery problems, lack of telephones that operate off of battery supplies, and other issues resulted in a major shutdown of all Arlington County government communications services. Issues that would appear to apply to all fiber networks in the U.S. would seem to include:
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> - Should there be national standards for back-up batteries, for alarms for failed batteries, and information kits for consumers, local governments and businesses as to how to cope with phone service during power outages?
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> - Should there be widely available listings of best practices to allow better reliability and sustainability of service to American consumers?

- Should there be national standards related to wireless networks and maintenance of service during power outages, especially for networks used by governmental units and first responders?

- Is there a need for a public awareness campaign to inform the public (business and consumers) as to the various levels of vulnerabilities of fiber optic networks, coax and copper wire, and mobile cellular service. Indeed are consumers aware that even satellite telephone service will not sustain service unless there are power generators or vehicular charging systems available to recharge hand-held transceivers?"

ITAC is now further concerned that Verizon, in a shift of policy, is now not providing initial emergency battery power systems free of charge with FiOS installation. Further, the charge for the battery packs is considered by some to be excessive. Since there is no systematic competitive supplier, it is not possible to determine what an appropriate market rate might be. It would seem that as a minimum there should be a provision that alternative suppliers of these emergency power systems should be required.

In light of the importance of emergency restoration of services, we would like to reiterate our concerns and call on the FCC to issue either a formal call for national input on this topic or for the FCC to issue some appropriate new proposed rulemaking that would restore fiber-optic systems to the level of performance established for copper-based networks with reliable power restoration that has been widely available to U.S. consumers for decades.

We would be happy to meet with FCC staff to discuss possible remedies and appropriate standards that might be considered for a possible rulemaking in this area.

Respectfully submitted,

ARLINGTON COUNTY INFORMATION
TECHNOLOGY ADVISORY COMMISSION

By: Joseph N. Pelton /JNP
Joseph N. Pelton, Chairman